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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/672,937

09/26/2003

Timothy B. Stockwell

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MILA KASAN, PATENT DEPT.  
APPLIED BIOSYSTEMS  
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EXAMINER

ZHOU, SHUBO

ART UNIT

PAPER NUMBER

1631

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,937	<b>Applicant(s)</b> STOCKWELL ET AL.	
	<b>Examiner</b> SHUBO (Joe) ZHOU	<b>Art Unit</b> 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11, 16, 18, 45 and 46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 16, 18, and 45-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicant's amendment and request for reconsideration filed 12/29/08 are acknowledged and the amendment is entered.

Claims 1-9, 11, 16, 18, and 45-46 are currently pending and under consideration.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9, 11, 16, 18, and 45-46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Note that the rejection is reiterated from the previous Office action mailed 10/31/08.

The claims are drawn to a method for analyzing sample sequence information relating to at least one sample comprising acquiring sample sequence information, assembling consensus sequence information from the sample sequence information, generating rule-based criteria, identifying ambiguous bases present within the consensus, and outputting the ambiguous bases to a user.

Since the claims are drawn to a method that involves judicial exception and data manipulation, the following analyses of facts of this particular patent application follows the rationales suggested in the Office's guidance to examiners under the Memorandum

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“Clarification of ‘processes’ under 35 USC § 101” (published May 15, 2008, available online [www.uspto.gov/web/patents/memorandum.htm](http://www.uspto.gov/web/patents/memorandum.htm)) and the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (OG Notices: 22 November 2005, available from the US PTO website at <http://www.uspto.gov/web/offices/com/sol/og/2005/week47/og200547.htm>), which is incorporated in the MPEP 2106.IV.C.2.

Paragraph three of the Memorandum states:

*“Based on Supreme Court precedent<sup>1</sup> and recent Federal Circuit decisions, the Office's guidance to examiners is that a § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing.<sup>2</sup> If neither of these requirements is met by the claim, the method is not a patent eligible process under §101 and should be rejected as being directed to nonstatutory subject matter.”*

The methods of the instant claims are not tied to another statutory class (such as a particular apparatus). Nominal or token recitations will not suffice, e.g. displaying, inputting, obtaining, etc. See ex parte Langemyr; Appeal 2008-1495, decided May 28, 2008. Reciting another statutory class in the preamble does not make the invention tie to the statutory class. Furthermore, in the instant invention, there is no physical transformation because a process of sequence data manipulation does not transform an article or physical object to a different state or thing. Therefore, at least for one embodiment, the claimed methods are not statutory process. Thus claims are thus drawn to nonstatutory subject matter.

It is noted that the claims, such as claim 1, are amended to recite providing a computer as the first step and a wherein clause of “wherein at least one of the assembling, generating and identifying is performed by the computer” as the last step. For the

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amended claims, at least one embodiment of the claimed invention only uses the computer to acquire and assemble sequence information, and the core steps of generating rule-based criteria and identifying ambiguous bases will not be tied to a machine or apparatus.

Note that the Office's 1/7/09 Memorandum also points out based on the decision in *re Bilski* that "insignificant extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article in an insignificant step, such as data gathering or outputting, is not sufficient to pass the test." In the instant case, the "acquiring" and "assembling" steps are to get the consensus sequence information in order to be used to identify ambiguous bases using rule-based criteria, and are thus considered as such insignificant extra-solution steps, and thus would not transform an unpatentable principle into a patentable process.

Applicant's argument filed 12/29/08 has been fully considered but it is not persuasive for reasons set forth in the immediate preceding paragraphs.

A telephone message has been left for Mr. Leonard Bowersox by Examiner Zhou for an interview to discuss possible amendment to overcome the rejection.

### ***Conclusion***

No claim is allowed.

**THIS ACTION IS MADE FINAL.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shubo (Joe) Zhou, whose telephone number is 571-272-

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0724. The examiner can normally be reached Monday-Friday from 8 A.M. to 4 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran, can be reached on 571-272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

/Shubo (Joe) Zhou/

Primary Examiner, Art Unit 1631